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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,817	07/28/2003	Takashi Murayama	033294-011	4354
21839	7590	09/30/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			SCHWARTZ, CHRISTOPHER P	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			3683	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/627,817

Applicant(s)

MURAYAMA ET AL.

Examiner

Christopher P. Schwartz

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-109)
- 6) ☐ Other: _____.

Christopher P. Schwartz
CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

1. The amendment filed 7/20/2004 has been received and considered. Claims 1,3-10 are pending. Claim 2 has been canceled the limitations of which have now been incorporated into claim 1.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1,3-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of copending Application No. 10/629,862 in view of Deem et al. 4064973. Regarding claim 1 of the instant application, as now amended, amended claim 1 of '862 discloses all of the features claimed, including the limitation of the pulling force acting upon the wedge member, but lacks the specific limitations to the wedge transmission mechanism.

As discussed previously the reference to Deem et al. shows the specifics of a wedge transmission mechanism at 38,44,48,50.

To have modified claim 1 to include the limitations of a wedge device, as suggested by Deem et al., would have been obvious since a wedge transmission of some kind is necessary for the '862 brake and the design taught by Deem et al., is for the most part, a conventional design. Applicant's claimed limitations simply amount to an obvious variation of this modification.

The limitations of claims 3-10 are met by the combined references above. See claims 3 or 4 of '862. Note the spring at 90 in Deem et al. To have altered the orientation of the electric motor such that the linear movement of the wedge member is substantially parallel to an output shaft of the electric actuator would have been an obvious expedient to the ordinary skilled worker in the art to meet different vehicle design requirements and/or limitations. To have modified claim 3 or 4 to include this limitation would have been obvious.

Regarding claim 10 such gear train mechanisms are notoriously well known in the brake art and usually go hand-in-hand with electric brake actuators.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 3683

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1,3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deem et al. '973 in view of Farr et al. '863.

Regarding claim 1 Deem et al. discloses a wedge operated brake device comprising a piston 34, actuator 60, a wedge transmission mechanism 48, a first plate 44, a second plate 38 and a wedge member (end of 48, but not labeled). Note the holder 50.

Deem et al. lacks showing the linear actuator 60 exerting a pulling force on the wedge member.

Farr et al. Teaches a wedge operated brake device in figures 9,10 and 13. Note the actuator may exert either a pushing or pulling force in these embodiments to effect a brake application.

One having ordinary skill in the art at the time of the invention would have found it obvious to have modified the actuator and wedge mechanism of Deem et al. so that a brake application could be effected by a "pulling force" as opposed to a pushing force, as taught by Farr et al., since such a design would merely amount to an alternative equivalent choice of actuating the brakes, as shown in figures 9,10,13 of Farr et al.

Regarding claims 3-7 these limitations are fairly taught by the combined references above.

7. Claims 8-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Deem et al. in view of Farr et al. as applied to claim 1 above, and further in view of Magnaval et al..

Regarding claims 8-10 Deem et al., as modified, lacks using an electric motor as the actuator.

However it is well known in the art to interchange electric and mechanical actuators dependent upon such well known engineering factors as cost, weight, durability and efficiency of operation.

Magnaval et al. Teaches such a general electric actuator known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have substituted the electric actuator of Magnaval et al. for the actuator of Deem et al. for at least one of the reasons above. Further to have altered the orientation of the electric motor such that the linear movement of the wedge member is substantially parallel to an output shaft of the electric actuator would have been an obvious expedient to the ordinary skilled worker in the art to meet different vehicle design requirements.

Regarding claim 10 such gear train mechanisms are notoriously well known in the brake art and usually go hand-in-hand with electric brake actuators.

Response to Arguments

8. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

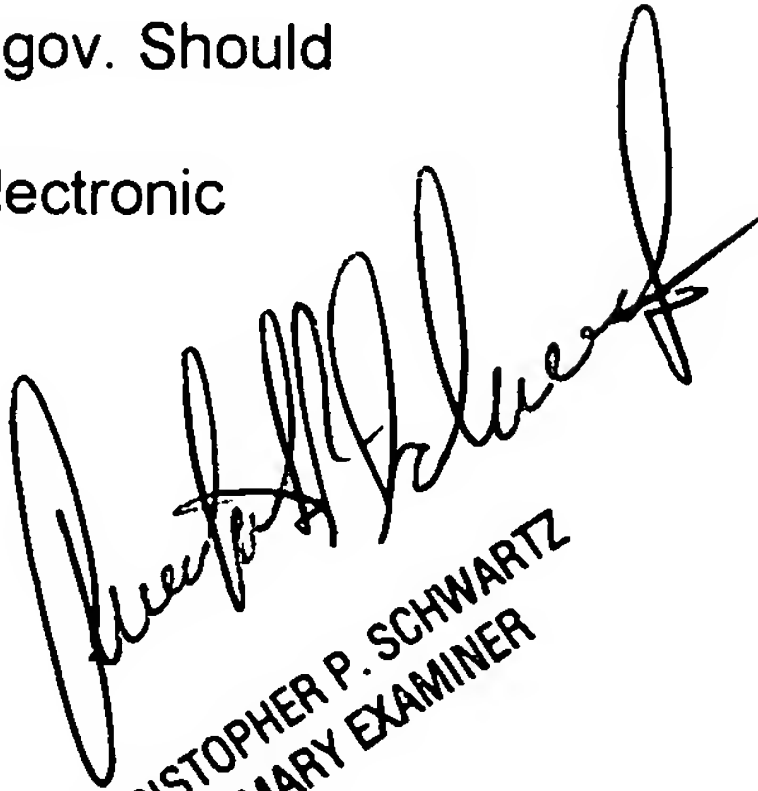
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the different types of electric motor/gear train configurations in the references provided..

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 703-308-0576. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps
9/25/04


CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER